Oct. 30, 1928. 1,689,824

L. A. GOELZ

ELECTRICAL CONNECTER

Filed Sept. 16, 1926

Fig.1.

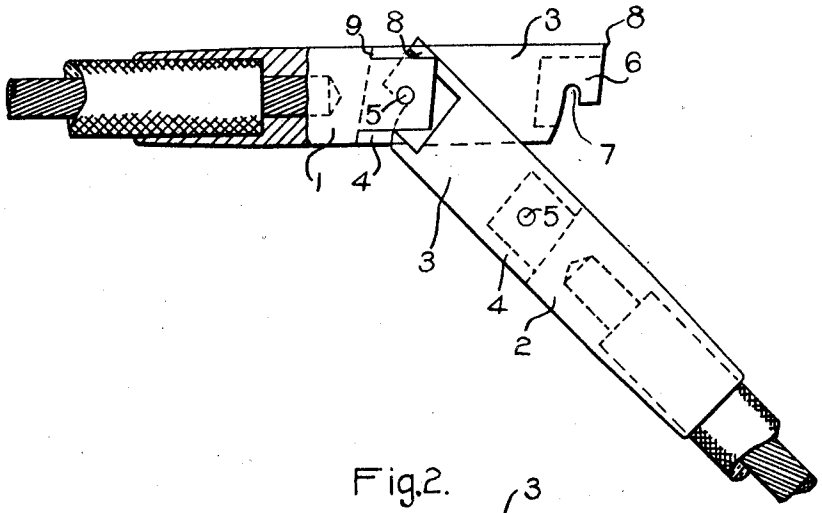


Fig.2.

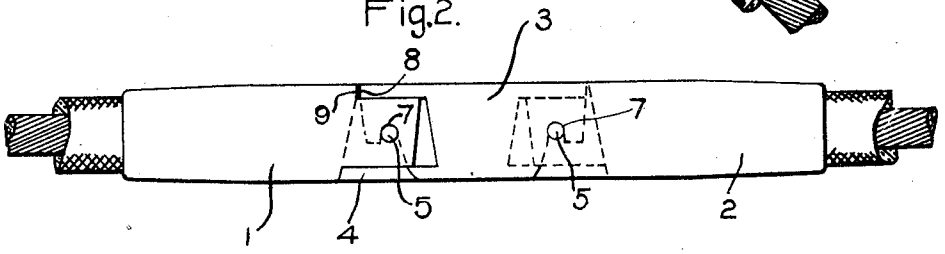


Fig.3.

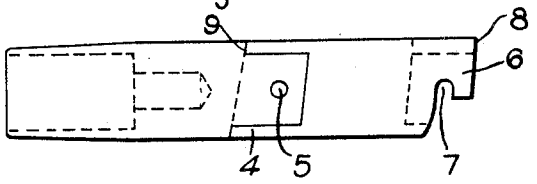
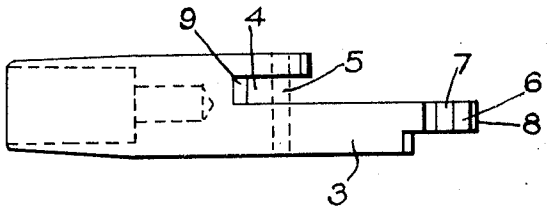


Fig.4.



WITNESSES:

INVENTOR

Leonard A. Goelz.

BY

ATTORNEY

Patented Oct. 30, 1928. 1,689,824

UNITED STATES PATENT OFFICE.

LEONARD A. GOELZ, OF PITTSBURGH, PENNSYLVANIA, ASSIGNOR TO WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, A CORPORATION OF PENNSYLVANIA.

ELECTRICAL CONNECTER.

Application filed September 16, 1926. Serial No. 135,840.

My invention relates to electrical connecters and particularly to interchangeable connecters.

One object of my invention is to provide an electrical connecter that shall comprise two interchangeable members.

Another object of my invention is to provide an electrical connecter having two interchangeable parts, each part being provided with a tongue and a slot for preventing the separation of the parts in a longitudinal or in a lateral direction.

Another object of my invention is to provide a connecter of a tongue-and-slot construction comprising two interchangeable parts having means for preventing their separation in a longitudinal or in a lateral direction and means for preventing overbreaking of the parts.

It is a further object of my invention to provide a connecter comprising two interchangeable members, each member having connecting members that prevent the separation of the members in a longitudinal or in a lateral direction when the members are in alined operative positions, that shall be practical in use, easy to assemble or disassemble and inexpensive to manufacture.

These and other objects that will be made apparent throughout the further description of my invention are attained by means of the apparatus hereinafter described and illustrated in the accompanying drawings, wherein

Fig. 1 is a view, partially in elevation and partially in section, of a connecter embodying my invention, in a partially disconnected position.

Fig. 2 is an elevational view showing the connecter in operative position.

Fig. 3 is an elevational view of one of the interchangeable members.

Fig. 4 is an elevational view of the device shown in Fig. 3 turned 90° about its longitudinal axis.

Referring to the drawings, the connecter comprises two interchangeable members 1 and 2, each of which has a tongue 3 and a slot 4. A pin 5 is disposed in the slot 4 of each member. Portions 6 of the tongues 3 are adapted to engage the slots 4 of the other members. Notches 7 are provided in the tongue portions 6 to receive the pins 5 in the slots 4 of the other member. Faces 8 of the tongue portions 6 are adapted to bear against an inner face 9 of the slots 4 when they are in alinement or in their operative positions.

Fig. 2 shows my invention in its operative position. The co-operation between the notches 7 and pins 5 prevents the separation of the two members in a longitudinal or in a lateral direction but permits the interchangeable members 1 and 2 to move in an angular direction in one plane from their alined positions, as shown in Fig. 1. The interchangeable members 1 and 2 are prevented from moving in the opposite angular direction in the same plane, or overbreaking, by the faces 8 of the tongue portions 6 pressing against the inner faces 9 of the slots 4.

The pins 5 have a diameter substantially the width of the notches 7 which prevents play or lost motion in a longitudinal direction, and the width of the tongue portions 6 is substantially the width of the slots 4, thereby causing a snug fit that ensures a good electrical connection and prevents movement in any direction except the angular movement in one plane and one direction from the alined position described above.

Referring to Fig. 1, the interchangeable members are connected by engaging the tongue portion 6 of member 2 with the slot 4 of the member 1, causing the notch 7 of the member 2 to receive the pin 5 of the member 1 and then moving the members in an angular direction until they are in their alined positions, at which time the tongue portion 6 of the member 1 will have engaged the slot 4 of the member 2. The pins 5, co-operating with the notches 7 and the faces 8 and 9, prevent the members 1 and 2 from further angular movement in the initial direction, as shown in Fig. 2.

My invention, as described above, provides a connecter comprising two interchangeable members that are simple in construction and inexpensive to manufacture, and that may not be separated by a longitudinal or a lateral movement when in use. The interchangeable feature affords both economical and time-saving values that are obvious to those skilled in the art.

While I have illustrated one embodiment of my invention, it will be apparent to those skilled in the art that certain changes, modifications, substitutions, additions and omissions may be made in the construction illus-

trated without departing from the scope and spirit of the invention as set forth in the appended claims.

I claim as my invention:

1. A connecter comprising two interchangeable members each of which has a tongue portion and is provided with a slot, a pin disposed in each slot, and a notch provided in each tongue portion for receiving the pin of the other member, whereby the tongue of each member engages the slot of the other member for preventing the separation of the members in a longitudinal or in a lateral direction.

2. A connecter comprising two interchangeable members each of which has a tongue portion and is provided with a slot, a pin disposed in each slot, and a notch provided in each tongue portion for receiving the pin of the other member whereby the tongue portion of each member is adapted to engage the slot of the other member with a face of each tongue portion adapted to press against an inner face of the slot of the other member for preventing over-breaking of the members and for preventing the separation of the members in a longitudinal or in a lateral direction.

3. A connecter comprising two interchangeable members each of which has a tongue portion and is provided with a slot, a pin disposed in each slot, a notch provided in each tongue portion for receiving the pin of the other member, the tongue portion of each member being adapted to engage the slot of the other member for preventing separation of the members in a longitudinal or a lateral direction, with the faces of the tongue portions fitting against the inner faces of the slots for permitting angular movement of the members in one plane and in one direction from a lineal operative position.

4. In a connecter, the combination of two interchangeable members each having a tongue and being provided with a slot having a pin disposed therein, a notch provided in the tongue portion of each member for receiving the pin of the other member, the tongue portion of each member being adapted to engage the slot of the other member for preventing the separation of the members in a longitudinal or in a lateral direction, a face of each tongue being adapted to press against an inner face of the co-operating slot for preventing angular movement of the members in one plane and one direction when the members are in alinement and for permitting angular movement of the members in the same plane in the opposite direction.

5. A connecter comprising two interchangeable members, each member having a tongue and a slot, a pin disposed in each slot, a notch provided in each tongue for receiving the pin of the other member, the tongue portions being adapted to engage the slots of the associated members for preventing separation of the members in longitudinal and in lateral directions and permitting angular movement of the members in one plane and in one direction when the two members of the connecter are in their operative positions and for preventing angular movement in the opposite direction.

In testimony whereof, I have hereunto subscribed my name this 13th day of September, 1926.

LEONARD A. GOELZ.